

ON THE SCORPIONS, SOLIFUGAE, AND A TRAPDOOR
SPIDER, COLLECTED BY REV. HENRI A. JUNOD,
AT SHILOUVANE, NEAR LEYDSDORP,* IN
THE TRANSVAAL.

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AN interesting collection of Transvaal Arachnida was recently submitted to me for examination by Mr. H. Junod. The collection contained specimens of Scorpions, Pseudoscorpions, Opiliones, Solifugae, and Araneae, and of these the Scorpions, Solifugae, and Trapdoor Spiders are here enumerated, and the new species described.

ORDER SCORPIONES.

The scorpions found belong to five different species, one of them not previously recorded from the Transvaal.

1. *Uroplectes triangulifer* Thor.

2 ♀ ♀ and 1 juv. These specimens closely resemble the Johannesburg form of the species (described in *Ann. S. Afr. Mus.* v. 2. p. 187. 1901), but differ slightly in the coloration, the tibia of the pedipalps being infuscated in the distal two-fifths only, while the femora of the legs are entirely yellow. Ex. in the South African Museum.

2. *Uroplectes formosus* Poc.

1 ex. This species has not hitherto been recorded from the Transvaal.

3. *Opisthophthalmus glabrifrons* Peters.

2 ♂♂, 2 ♀♀, and 2 juv. ♀♀. These specimens, which are of a large size, have the eyes placed far forward, and closely resemble those described by me in a previous paper (*Ann. S. Afr. Mus.* v. 1. p. 161, under *a*). Ex. in the South African Museum.

4. *Cheloctonus jonesi* Poc.

3 ♂♂, 2 ♀♀, and 4 juv. In the South African Museum.

5. *Opisthacanthus validus* Thor.

1 ♀.

* The Station of Shilouvane, belonging to the Swiss Evangelical Mission, is at the foot of the Drakensberg Range, near Kranzkop, in the low country of St. Pietersburg, about 2000 feet high, on a little hill not far from the Selati River.—H. A. Junod.

ORDER SOLIFUGAE.

Four species of this order were found, all belonging to the genus *Solpuga* Licht. Of these, one is new to the Transvaal, two are undescribed, and the fourth is too young to be identified.

1. *Solpuga sericea* Poc.

1 ♂. This species was hitherto known only from Rhodesia.

2. *Solpuga spiralicornis* spec. nov.

Several specimens (♂♂, ♀ and juv.) Type in the South African Museum.

♂♀. Very closely allied to *S. serraticornis* Purc. (*Ann. S. Afr. Mus.* v. 1 p. 409, fig. 16 and 16a, 1899), but distinguishable as follows:—

Flagellum of ♂, when seen from the side, resembling that of *serraticornis*, but differing, when viewed from above, in being much more strongly outcurved posteriorly, and in having the distal sinus in the form of a half-spiral curve, instead of lying in a vertical plane; moreover the bluntly serrated edge is very short or quite obsolete,



FIG. 1.—*Solpuga spiralicornis* spec. nov. Right chelicera of ♂ seen from outer side (A), and from dorsal side (B).

being confined, when distinguishable, to the outer side of the distal part of the spiral sinus, and not continued distally along the dorsal edge.

Colour much as in *serraticornis*, but the abdominal tergites are more or less yellowish, except along the median line and all round the edges, where they are blackened. The soft skin at the sides of the abdomen is narrowly blackened above in the ♂, but broadly in the ♀. The under surface is pale yellowish.

Length (including chelicerae) of ♂ 37—41 mm., ♀ 14 mm.; width of carapace in largest ♂ 10½ mm., ♀ 9 mm.; length of pedipalps (excluding coxa), ♂ 48 mm., ♀ 27½ mm.

3. *Solpuga junodi* spec. nov.

Several specimens (♂♂ and ♀♀). Type in the South African Museum.

♂. Colour of head and limbs yellowish; tarsus and apex of metatarsus of pedipalps black, the rest of the metatarsus sometimes brown above; legs blackened distally, the fourth pair reddish and (although much rubbed) evidently provided with a mane of long pale yellowish hairs; six anterior tergites of abdomen brownish yellow, blackened laterally, the posterior tergites quite black; soft skin on sides pale yellowish, covered with creamy white silky hairs, only the extreme upper edges being blackened; sternites of abdomen pale yellowish, broadly blackened at the sides.

Upper finger of chelicerae short and straight, curved only at the apex, the

terminal fang long and strong, the two distal teeth large, strongly laterally compressed and sublaminate, appearing broadly conical when seen from the side, and placed about midway between the apex and the large basal tooth of the single series; the latter tooth with a tiny (sometimes obsolete) tooth in front at base; inner part of dorsal surface deeply grooved, the groove bordered on the inner side by a high keel, the greater or distal part of the groove free, the flagellum occupying only the basal part.

Lower finger of chelicerae with three upright teeth close together near the base; the outer side provided in the middle with a strong tubercular crest, as in *S. hostilis* (White).

Basal enlargement of flagellum large, rounded above posteriorly, with high dorsal keel; procurrent portion of flagellum short, recurving between the two distal teeth; recurrent portion curving slightly and ending just behind the basal enlargement, its upper surface flattened, grooved posteriorly, its apex slender and pointed.

Pedipalps stout, the three distal segments with numerous truncated cylinder-bristles below.

♀. Upper finger of chelicerae with only one intermediate tooth. First abdominal sternite strongly produced at the median hinder angles into a pair of broadly rounded lobes. Underside of tibia of pedipalps with very few truncated bristles, the upperside of this segment, like that of the metatarsus, thickly covered with short, dark brown, cylindrical bristles.

Total length, ♂ 26 mm., ♀ 27 mm.; width of carapace, ♂ 6 mm., ♀ 6½ mm.; length of tibia of pedipalp, ♂ 7 mm., ♀ 5½ mm.

The dentition is peculiar on account of the absence of a large gap in the single series of the upper finger, although the species is evidently related to *S. hostilis* (White), which it resembles in the general coloration, the presence of a mane on the hindlegs and particularly the presence of the strong outer crest on the lower finger of the chelicerae.



FIG. 2.—*Solpuga junodi* spec. nov. Right chelicera of ♂ from outer side.

ORDER ARANEAE.

Amongst the *Araneae* was one Trapdoor Spider of the family *Ctenizidae*, and belonging to a genus not previously recorded from the Transvaal. This species is described here, but the rest of the spiders have not been identified.

Heligmomerus caffer spec. nov.

1 ♀ (somewhat damaged).

Colour of carapace and limbs reddish brown, the underside more yellowish.

Length of carapace (measured across posterior lateral eyes) equal to that of the tibia, metatarsus and two-thirds of the tarsus of fourth leg. Ocular area nearly one-half wider than long, its width considerably less than the length of the first metatarsus; frontal eyes the largest of the eight, transversely oval, placed on separate tubercles and looking slightly outwards and downwards, their distance apart about three-quarters of their own diameter; anterior median eyes of the second group much smaller than the frontal eyes and less than a diameter apart,

the quadrangle formed by these four eyes about as long as its anterior width, which greatly exceeds the posterior width; posterior row of eyes straight, the median eyes almost round, their distance apart at least double their distance from the lateral eyes, which are obliquely oval and a little smaller than the anterior laterals.

Tibia of third leg much shorter than the patella and provided on each side above with a group of stout spinules, that on the posterior side broadly triangular and occupying more than the distal third of the segment. Patella with five to six stout distal spinules above on posterior side; the anterior side with a row of them, expanding into a rastellum at distal end.

Labium with five distal teeth.

Abdomen too shrivelled for description.

Length of carapace, $9\frac{1}{3}$ mm.; width of ocular area, 2 mm.

SOME NEW *COSSIDAE* FROM QUEENSLAND, BRED BY MR. F. P. DODD.

BY THE HON. WALTER ROTHSCHILD, Ph.D.

1. *Xyleutes doddi* spec. nov.

♂ ♀. Body above and forewing olive grey. Antenna wood-brown, pectinations nearly black on the upperside. Mesonotum of ♂ with two narrow black lines converging in front. Abdominal tergites (except distal ones) with ill-defined, broad, hair-brown bands, which in ♀ occupy nearly the whole tergites. Underside of body olivaceous grey. Tarsi brown, segments tipped with white.

Wings, *upperside*.—Forewing: very densely irrorated with a network of mouse-grey lines all over; a conical spot before SM^2 , about 5 mm. long, situated beyond the middle of SM^2 ; an indistinct spot or patch in front of the conical spot, but a little more proximal, contiguous with it; a third spot at lower angle of cell; an indication of a postdiscal series of spots; blackish mouse-grey marginal dots distinct; the lines in proximal half of wing partly more prominent and longer than those in outer half.—Hindwing: white in ♂, dark drab-grey in ♀; fringe with indistinct brown dots, longer scales of fringe white.

Underside.—Forewing: ground-colour rather darker than above; conical spot absent.—Hindwing of ♂ as above, but costal edge grey; fringe white, with distinct dots; of ♀ similar to forewing, irrorated with mouse-grey in outer half.

Neuration: R^1 of forewing close to cellule; R^2 and R^3 from a point. D^1 of hindwing one-half (or less) longer than D^2 ; D^3 less than half the length of D^4 .

Length of forewing: ♂, 33 mm.; ♀, 55 mm.

Hab. Townsville, Queensland, September and October.

One pair.

Type: ♂, October.